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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,647	04/15/2005	Kazuhisa Ose	Nissin-4-PCT/Minori	1563

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EXAMINER	
KILKENNY, PATRICK L	
ART UNIT	PAPER NUMBER
3732	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/20/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,647	OSE ET AL.	
	Examiner	Art Unit	
	Patrick J. Kilkenny	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *5-7,9-15 and 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *5-7, 9-15, and 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/5/2006 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims *5-7, 9-15, and 17* are rejected under 35 U.S.C. 103(a) as being unpatentable over Rabenstein et al. (2002/0049009) in view of Lang (5,030,102) and in view of Schulz et al. (3,458,936). Rabenstein et al. discloses a model tooth system for securing a crown (page 1, paragraph 0002) in which there is a modeled root part and fixing part adjacent to the root part (Fig. 1, #'s 4 and 8). The fixing part is small cylindrical and surrounds the central axis. It has a constant dimension shaft (#8) and a

variable dimension head (#11). The head is divided into multiple symmetrical divisions by a slot that extends along the axis of the shaft (Fig. 1, #9). The divided parts are deformable towards the central axis and each other (page 3, paragraph 0044). There is also a model tooth-fixing base into which the root part and the fixing part of the model tooth detachably fit (Fig. 3, #12). They are accommodated in a tooth-fixing hole (Fig. 3, seen in cross-section), which has the shape to lock in the swelling part of the tooth-fixing part of the tooth with a corresponding locking part on the tooth-fixing base (Figure 3, #16; Page 3, paragraph 0044).

Rabenstein et al. does not discloses that the head portion is greater in dimension than the shaft portion. Lang teaches a dental tooth model in which there is a root part (3), a shaft (6), and a head (4) and the head has a larger dimension than the shaft (Fig. 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the head and shaft of the tooth model of Rabenstein et al. so that the head was larger than the shaft, as taught by Lang, so that there is a tighter fit when inserting the dental model tooth into the corresponding slot or hole.

Rabenstein et al. also do not disclose the fixing part being detachably connected to the root part and that the model base is in the shape of a human jaw and has a passage with to differently sized portions for receiving the shaft and the head of the fixing part. Schulz et al. disclose a dental model tooth in which the fixing part is detachable from the root part of the tooth. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the dental tooth model of Rabenstein in view of Lang so that the fixing part was detachable, as taught by

Schulz et al., so that individual teeth and fixing parts could be interchangeably replaced when one or the other became excessively worn.

Rabenstein et al. also do not disclose that the fixing part is made of an elastic resin with a bend elastic modulus of 800 to 10,000 MPa. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tooth model of Rabenstein et al. with a fixing part made from a elastic resin with a bend elastic modulus in the range of 800-10,000 Mpa, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Schulz et al. also disclose a dental models base in the shape of the human jaw (Fig. 1) for receiving the fixing part of the tooth with a locking snap fit action. There is a passage with a smaller portion for the shaft (28) and a larger portion for the head (18). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Rabenstein in view of Lang so the dental model base of Lang had a two portion passage with different dimensions for receiving both the shaft and the head of the fixing part, as taught by Schulz et al., so that the dental model tooth fit more tightly within the model base.

Rabenstein et al. also doe not disclose that the maximum protuberant height of the enlarged part is 5-50% of the outer diameter of fixing part and that 30-90% of this maximum protuberant height is engaged with the locking part. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the enlarged tooth fixing part of Rabenstein et al. to be 5-50% of the outer

diameter of fixing part and have 30-90% of that maximum protuberant height engaged with the locking part, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Response to Arguments

Applicant's arguments filed 9/5/2006 have been fully considered but they are not persuasive. In response to Applicant's argument that Rabenstein et al. include additional structure (narrowed area 16) not required by Applicant's invention, it must be noted that INSERT Rabenstein et al. disclose the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant.

Applicant also argues that the claimed tooth model is not inserted into the oral cavity of the patient. However, Rabenstein et al. also specifically disclose that their tooth model is for implantation in to a tooth model base (page 1, [0002]; page 3, [0045]), as is the applicant's. However, even if the tooth model of Rabenstein et al. was for insertion into the oral cavity, it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

In response to the arguments that Rabenstein et al. do not disclose that the model tooth is detachabley connected to the root part and that the head portion is not greater than the shaft portion, it is noted that these features were rejected based upon

obvious rejections (as describe above) and not anticipated soley by Rabenstein et al. Rabenstein et al. does however disclose that the fixing part of the tooth has a locking snap fit action with the base that receives it (see the last sentence of the abstract).

Applicant's arguments with regard to the resin material of a specific bend elastic modulus and the range of dimensions of the protuberant height do not overcome the rejections applied thereto, since applicant has not provide any convincing showing that these are nothing more than optimun or workable values as asserted by the examiner. Applicant has not provided any showing that such limitations are "critical". In re Cole, 140 USPQ 230 (CCPA 1964); In re Kuhle, 188 USPQ 7 (CCPA 1975); In re Davies, 177 USPQ 381 (CCPA 1973). Mere arguments by counsel cannot take the place of evidence. In re Cole, 236 F.2d 769, 773, 140 USPQ 230, 233 (CCPA 1964); In re Walters, 168 f.2d 79, 80, 77 USPQ 609, 610 (CCPA 1948); et al.

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Kilkenny whose telephone number is (571) 272-8684. The examiner can normally be reached on Mon-Fri, 8-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patrick J. Kilkenny

Cris L Rodriguez
CRIS L. RODRIGUEZ
PRIMARY EXAMINER